



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8

1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
<http://www.epa.gov/region08>

Ref: 8EPR-SR

March 20, 2008

MEMORANDUM

SUBJECT: Libby Asbestos Site, Operable Unit 3 (OU3)
Information on Landfarming at the Libby Mine
Provided by MDEQ

FROM: Bonnie Lavelle
Remedial Project Manager

A handwritten signature in black ink, appearing to read "Bonnie Lavelle", written over the printed name.

TO: Libby Asbestos Site OU3 Site File

The attached documents were provided to EPA by Catherine LeCours of the Montana Department of Environmental Quality (MDEQ). They provide information on petroleum contaminated soils near the Libby mine and landfarming response actions overseen by the MDEQ.

Attachments



Printed on Recycled Paper

Route to: _____

Montana Department Of Environmental Quality
Remediation Division

ACTIVITY REPORT

TE/C.D. LBAs
DEQ File # 38-03-02
Admin. Record: Yes No
Administrative Record #
Confidential: Yes No
Key Visual/Contaminant landfarm

Report by: Catherine LeCours Date: 7-13-06 Time: 8:00A

Contacted/Contacted by: MARCILE SIGLER - DEQ

Phone: _____ Fax: _____

Address: _____

Subject: LIBBY ASBESTOS SITE - WR GRACE Petroleum
land farm

Summary of Activity:

Bob Marriam - Remedium Group for WR Grace

Marcile Sisler - DEQ

Catherine LeCours - DEQ

escorted by Shawn Oliveira - CDM

traveled to mine to locate land farms

drums still in area, locations gravel/boulders

Marcile will work w/ Bob to collect samples

CDM offered to GPS locations

I suggested better map to find them again

Marcile will work w/ CDM/Remedium/ EPA re: access and samples
and will keep me informed

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ)
PETROLEUM RELEASE SECTION
2209 PHOENIX
PO BOX 200901
HELENA, MONTANA 59620-0901

7100 Libby Asbestos
38.03.02
Admin. Record # _____ No
Administrative Record # _____
Confidential: Yes _____ No
Key Words/Comments: PHONE (406) 444-5970
FAX (406) 444-1901

APPROVAL TO LANDFARM CONTAMINATED SOILS

KOOTENAI DEVELOPMENT CO. and ALAN STRICKER
(name of landfarm site owner) (name of landfarm site operator)

are allowed to landfarm up to 40 cu. yds. cubic yards of soil

contaminated with BUNKER C / #5 OIL

at the following location: VERMICULITE MOUNTAIN

SW 1/4 NE 1/4 S22 T31N R30W

The contaminated soil is from the property owned by: W.R. GRACE & CO

and was originally located at the following address: 100 HIGHWAY 37

LIBBY MT 59923

REQUIREMENTS:

Soil Sampling of Treatment Area:	# of samples	Test for	Frequency
	<u>1</u>	<u>EPH</u>	<u>ANNUALLY</u>

Landfarm site to be bermed? ☒ Yes ☒ No ON CONCRETE PAD

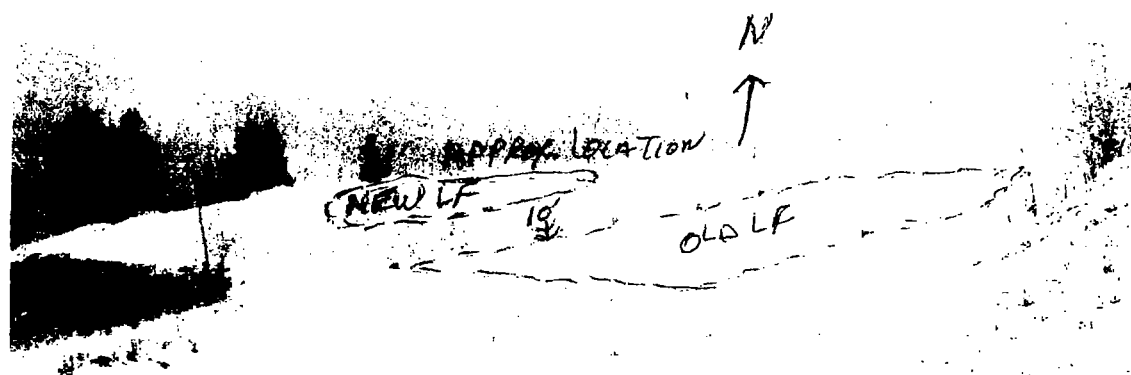
Tilling frequency: MONTHLY

Other: MONTHLY TILLING TO BEGIN IN EARLY SPRING & CONTINUE WHILE WEATHER PERMITS. TO PREVENT CROSS CONTAMINATION, THE BLADES

MUST BE CLEANED BETWEEN TILLING OF THE OLD & NEW LANDFARMS
THE DEQ WILL CONTINUE TO COLLECT THE SAMPLES FOR BOTH LAND FARMS- ANY QUESTIONS CALL 755-8985 X5.

APPROVED BY: Marcia Sigler DATE: 11/15/00

Any impacts to public health and the environment resulting from the landfarming of contaminated soils at this site, are the responsibility of the owner of the landfarm site property.



Libby Asbestos
38-02-02

Route to: _____

Montana Department Of Environmental Quality
Remediation Division

ACTIVITY REPORT

Report by: John Constaw Date: 10/17/2000 Time: 2:30

Contacted/Contacted by: John Stout - URS

Phone: 293-3964 Fax: _____

Address: Libby - Grace office

Subject: Libby - Export plant - free product

Summary of Activity:

- while Jim's crew was excavated contaminated soil, they uncovered a concrete slab. They removed the slab & underneath found a large pool of free petroleum product. According to Jim it smells like ~~crude oil~~ crude oil. Jim halted all work on-site & contacted me. I told him (after talking to petro folks) to pump free-product out & containerize it, then fence off area. Collect a sample & send it in for rush return for product ID & a Carbon scan. Jim agreed, ~~the~~ told him someone from the State will be on-site tomorrow to inspect & direct.



Montana Department of
ENVIRONMENTAL QUALITY

Marc Racicot, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • E-mail: www.deq.state.mt.us

April 4, 2000

Alan Stringer
P.O. Box 695
Libby, MT 59923

Subject: Soil Sample Results from W.R. Grace Landfarm, located NE of Libby, MT; Facility ID #27-13196, Release #1729.

Dear Mr. Stringer:

The Department of Environmental Quality (DEQ) Petroleum Release Section (PRS) has reviewed the soil sample results from the landfarm associated with the facility referenced above. The results indicate that elevated levels of contamination remains in the soil. Closure will not be considered until the elevated levels are at or below DEQ action standards.

Mel Parker of Raintree Nursery is the individual assigned to operate the landfarm site. Darryl Reed of the DEQ approved this site for the contaminated soil on 7/30/93 and specifically requested monthly tilling during the treatment season. It does not appear that this has been the case. In order to expedite the potential closure of the W.R. Grace facility, the DEQ requires the following tasks be completed:

- ❖ The landfarm is to be tilled on a monthly basis while weather permits, especially during the summer months when vapors are more readily volatilized.

Although Mr. Parker may be aware of the hazards associated with working on Vermiculite Mountain, I strongly recommend that he be trained and equipped with the appropriate breathing apparatus and provided with appropriate attire for the upcoming tilling events.

- ❖ I will visit the landfarm site again in December of 2000 to obtain additional samples. The composite of soil samples will be analyzed for EPH screen/MBTEXN. As in 1999, you will be billed for the cost of the analysis only.

If you have questions regarding this letter please contact my office at (406) 755-8985, Ext. 5. The DEQ-PRS appreciates your cooperation in corrective action requirements.

Sincerely,

Marcile Sigler
Environmental Specialist
ltrl45.mes

cc: Bill Rule, PFSS
Lincoln County Sanitarian, 418 Mineral Avenue, Libby, MT 59923
✓ John Constan, DEQ Site Response Section

**FIELD NOTES
FOR W.R. GRACE
Facility ID# 27-13196**

Date: 11/15/00

Address: 100 HWY 37

County: Lincoln

Phone: 293-3964

Inspector: M. Sigler

Arrival Time: 11 AM Departure Time: 1:30pm

Person(s) Contacted: Alan Stringer

Weather: Cold and overcast ~36 degrees

Purpose of Inspection: To observe the proposed landfarm for the Bunker C contaminated soil which was discovered at the W.R. Grace remedial site. And, to collect soil samples from the present LF.

Background: Upon removal of a concrete slab it was observed that product of some type had pooled beneath the slab. By all appearances the product is Bunker "C" oil. John Constan has requested that I look at the proposed landfarm site

Samples Collected: Yes, old LF

Photographs Taken: Yes, of the proposed LF and it's approximation to the old LF

Vapor Monitor: N/A

Calibrated: N/A

Calibration Date/Time: N/A

Observations: I Met with Alan Stringer at the W.R. Grace office in Libby. We had a short discussion regarding the proposed LF site and then departed to inspect it. The area which Grace would like to utilize is adjacent to and approximately 10' NNW of the older Grace LF site, which is still in remediation. The proposed LF will be placed on concrete, concrete pads are from former buildings now removed. The old LF is on concrete as well. At the present time there are 55 gallon drums that delineate the horizontal extent of the old LF and the space in-between the drums is bermed although somewhat deteriorated. The excavated volume of contaminated soil is minor, approximately 25 to 30 cubic yards. Generally facilities do not have more than one LF and generally not in the same proximity. However, given that the LFs are relatively remote, and often behind locked gates it seemed reasonable to place them in proximity to one another so equipment necessary to till the soil was made as convenient as possible. I stressed to Alan that the discs and tires would require decon between working the two LFs. This is necessary in order to prevent cross contamination of the soil. I also informed Alan that the LFs are to be tilled once a month throughout the year except when weather was prohibiting (December, January, February and possibly March). Alan requested that the soil be stockpiled until spring due to winter setting in. I told him yes, but to stockpile the soil on visqueen and then cover the soil with the same. I obtained soil samples from the old LF.

I dropped Alan off at the Grace office and departed for Kalispell.

Myfile46.mes

Libby Asbestos

Constan, John

From: Hammer, Bill
Sent: Tuesday, October 17, 2000 3:25 PM
To: Sigler, Marcile
Cc: Constan, John
Subject: WR Grace in Libby

Libby Asbestos
38-02-02

Hello Marcile:

Can you travel to Libby? John C. has received word that a pool of apparent petroleum has been discovered at the W.R. Grace facility. Apparently a concrete slab was discovered and removed, revealing a pool of oily-looking liquid. This may or may not represent a Petro Fund eligible petro release at this time. John will be directing the contractor to pump and containerize the liquid. We figured that it needs to be characterized with a "carbon scan and product ID" to identify the liquid. That will be one of the pieces in the "who has jurisdiction" puzzle. Another piece in the puzzle is whether or not the liquid is within a containment vessel, a sump, or merely floating on the groundwater. Please contact John (the main man) Constan for more information and to apprise him of your activities. I logged this into our Leak Book.

Be careful and don't breath the dust.
Bill

Constan, John

From: Sigler, Marcile
Sent: Monday, October 30, 2000 2:39 PM
To: Constan, John
Cc: Kuhn, Jeff; Hammer, Bill
Subject: RE: Libby

Libby Asbestos
 38-02-02

Hi John,

I just received a call from Peter and he was asking to place the ~35 yds of material onto the existing landfarm. Correct me if I am wrong, but I was under the impression that each land farm was used once for a site specific release, which would not include what has recently been excavated. The soil at the land farm is on a concrete foundation and is scheduled to be resample in December. According to last years analysis, it may be ready for closure fairly soon. I would prefer not to jeopardize the potential for this closure. I am open to all comments and thoughts here.

-----Original Message-----

From: Constan, John
Sent: Monday, October 30, 2000 10:40 AM
To: Sigler, Marcile
Subject: Libby

Marcile,

A Peter Pedurak from URS (Grace contractor) will be contacting you about the Libby petroleum dig out that occurred on Grace's property two weeks ago. I informed him that he has to work with you on the proper paperwork prior to disposing of the material at the land farm. Can you please "CC" me on any and all paperwork you generate for Grace on this issue. If you have any questions give me a call. Thanks for your help.

John

~~~~~  
 John A. Constan  
 Environmental Scientist  
 Remediation Division  
 Hazardous Waste Site Clean-up Bureau  
 406-444-1438  
 ~~~~~

Libby Asbestos

URS317 Mineral Avenue
Libby, MT 59923
Tel: 406/293-3964
Fax: 406/293-3749TO: John Constan
FIRM: MDEQ
FAX: 406-444-1901FROM: Pete Pendrak - URS
DATE: 10/30/00
10 Pages including cover

MESSAGE:

John,

These are the results of the soil sample
collected from the foundation excavation at the
Export Plant. The Lead 1 Sample is a direct sample
of the product in the soil. Please call with
questions or comments.

Thanks - Pete**Confidentiality Notice**

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Client: URS Corp

Login No.: 00-90875

Date: 25-Oct-00

EXTRACTABLE PETROLEUM HYDROCARBONS SCREENING ANALYSIS REPORT

EXPORT PLANT-317 MINERAL AVE. LIBBY, MT 59923

Received:19-Oct-00

Lab No./Sample Information	Total			Date/Time	Date	Surrogate
	Extractable	Units	Q	Analyzed	Extracted	%Rec.
001-00-90875	1240	µg/g(ppm)		24-Oct-00 15:31	20-Oct-00	56
LOAD 1						
18-Oct-00 15:50				Batch I.D.:EPH-GRPS001019		Analyst:skw
002-00-90875	< 10	µg/g(ppm)		24-Oct-00 12:11	20-Oct-00	73
EAST WALL						
18-Oct-00 18:00				Batch I.D.:EPH-GRPS001019		Analyst:skw
003-00-90875	< 10	µg/g(ppm)		24-Oct-00 12:50	20-Oct-00	65
WEST WALL						
18-Oct-00 18:00				Batch I.D.:EPH-GRPS001019		Analyst:skw
004-00-90875	< 10	µg/g(ppm)		24-Oct-00 13:29	20-Oct-00	68
SOUTH WALL						
18-Oct-00 18:00				Batch I.D.:EPH-GRPS001019		Analyst:skw
005-00-90875	16	µg/g(ppm)		24-Oct-00 14:08	20-Oct-00	65
BOTTOM						
18-Oct-00 18:00				Batch I.D.:EPH-GRPS001019		Analyst:skw
006-00-90875	222	µg/g(ppm)		24-Oct-00 14:50	20-Oct-00	58
INTERMEDIATE						
18-Oct-00 18:00				Batch I.D.:EPH-GRPS001019		Analyst:skw

Qualifiers(Q) and Notes

NOTE1: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time. This value is equivalent to EPA 8015M as Diesel.



Batch: EPH-GRPS001019E

Date: 25-Oct-00

EPH SCREEN BATCH QUALITY ASSURANCE REPORT

QC Sample I.D.	Diesel Range Organics	Diesel Range Organics as Diesel	Total Extractable Hydrocarbons	Units	Q	Date/Time Analyzed	Date Extracted	Surrogate %Rec.
Method Blank 1	< 10	< 10	< 10	µg/g(ppm)		23-Oct-00 01:55	20-Oct-00	85

LABORATORY CONTROL SAMPLE REPORT

Date Analyzed: 23-Oct-00 01:08:00

Date Extracted: 20-Oct-00

CONSTITUENT	SPIKE ADDED µg/g(ppm)	MS CONC. µg/g(ppm)	MS % Rec.	QC Limits % Rec.	Surrogate %Rec.
EPH Spiking Mix	156	158	101	60 to 140	89

MATRIX SPIKE/MATRIX SPIKE DUPLICATE REPORT

MATRIX SPIKE

Laboratory Number: 002-00-59122

Date Analyzed: 23-Oct-00 15:22:00

Date Extracted: 20-Oct-00

CONSTITUENT	Spike Added µg/g(ppm)	Sample Conc. µg/g(ppm)	MS Conc. µg/g(ppm)	MS % Rec.	QC Limits % Rec.	Surrogate %Rec.
EPH Spiking Mix	156	44	206	104	60 to 140	76

MATRIX SPIKE DUPLICATE

Laboratory Number: 002-00-59122

Date Analyzed: 23-Oct-00 00:21:00

Date Extracted: 20-Oct-00

CONSTITUENT	Spike Added µg/g(ppm)	MSD Conc. µg/g(ppm)	MSD %Rec.	RPD	QC Limit RPD	QC Limit %Rec.	Surrogate %Rec.
EPH Spiking Mix	156	214	109	5	20	60 to 140	76

Analyst: pf



EPH ALIPHATICS CONTINUING CALIBRATION REPORT

This continuing calibration report applies to the following analysis runs:
001-00-90875,002-00-90875,003-00-90875,004-00-90875,005-00-90875,006-00-90875

Sample Name: cc1 EPH Aliphatics Continuing Cal :1024DROH.cc1

Area File: G:\ORG\HP1\1024DROH.01A

Date & Time Collected: Oct 24, 2000 11:32:43

Method File: G:\ORG\HP1\SH1010A.MET

Calibration File: G:\ORG\HP1\ALI0620K.CAL

COMPOUND	ACTUAL	MEASURED	%RECOVERY	%RECOVERY LIMITS
n-Nonane	200	189	94	75-125
n-Decane	200	193	96	75-125
n-Dodecane	200	191	95	75-125
n-Tetradecane	200	192	96	75-125
n-Hexadecane	200	192	96	75-125
n-Octadecane	200	192	96	75-125
n-Nonadecane	200	192	96	75-125
n-Eicosane	200	198	99	75-125
n-Docosane	200	196	98	75-125
n-Tetracosane	200	194	97	75-125
n-Hexacosane	200	194	97	75-125
n-Octacosane	200	196	98	75-125
n-Triacontane	200	170	85	75-125
n-Hexatriacontane	200	188	94	75-125
TOTAL EPH	2800	2676	96	75-125
*1-Chloro-octadecane	200	171	86	75-125

**ENERGY LABORATORIES, INC.**
 2704 BILLINGS AVE. • HELENA, MT 59601 • P.O. BOX 5688 • HELENA, MT 59604
 VOICE/FAX 406-442-0711 • E-MAIL dclbg@energylab.com
LABORATORY ANALYSIS REPORT
 URS Corp
 Jim Stout
 317 Mineral Ave
 Libby, MT 59923

 Project ID: EXPORT PLANT-317 MINERAL AVE. LIBBY, MT 59923
 Sample ID: LOAD 1
 Laboratory ID: 00-90875-1
 Sample Matrix: Soil
 Sample Date: 18-Oct-00 1550
 Received at lab: 19-Oct-00

Reported: 25-Oct-00

	Results	Units	% Spike Rec.	Reporting Limit	Regulatory Limit	Method	Analized	
TCLP, Zero Headspace Extraction						EPA 1311	22-Oct-00 1200	MS
TCLP Volatiles, ZHE Extraction								
TCLP Benzene	<0.010 mg/l		96	0.010	0.5	EPA 8260B	23-Oct-00 1624	TRR
TCLP Carbon Tetrachloride	<0.010 mg/l		93	0.010	0.5	EPA 8260B	23-Oct-00 1624	TRR
TCLP Chlorobenzene	<0.010 mg/l		105	0.010	100	EPA 8260B	23-Oct-00 1624	TRR
TCLP Chloroform	<0.010 mg/l		103	0.010	6	EPA 8260B	23-Oct-00 1624	TRR
TCLP 1,4-Dichlorobenzene	<0.010 mg/l		90	0.010	7.5	EPA 8260B	23-Oct-00 1624	TRR
TCLP 1,2-Dichloroethane	<0.010 mg/l		102	0.010	0.5	EPA 8260B	23-Oct-00 1624	TRR
TCLP 1,1-Dichloroethene	<0.010 mg/l		99	0.010	0.7	EPA 8260B	23-Oct-00 1624	TRR
TCLP Methyl ethyl ketone	<0.20 mg/l		100	0.20	200	EPA 8260B	23-Oct-00 1624	TRR
TCLP Tetrachloroethene	<0.010 mg/l		113	0.010	0.7	EPA 8260B	23-Oct-00 1624	TRR
TCLP Trichloroethene	<0.010 mg/l		113	0.010	0.5	EPA 8260B	23-Oct-00 1624	TRR
TCLP Vinyl Chloride	<0.010 mg/l		83	0.010	0.2	EPA 8260B	23-Oct-00 1624	TRR



LABORATORY ANALYSIS REPORT

URS Corp
Jim Stout
317 Mineral Ave
Libby, MT 59923

Project ID: EXPORT PLANT-317 MINERAL AVE. LIBBY, MT 59923
Sample ID: EAST WALL
Laboratory ID: 00-90875-2
Sample Matrix: Soil
Sample Date: 18-Oct-00 1800
Received at lab: 19-Oct-00

Reported: 25-Oct-00

	Results	Units	% Spike Rec.	Reporting Limit	Regulatory Limit	Method	Analized	
TCLP, Zero Headspace Extraction						EPA 1311	22-Oct-00 1200	MS
TCLP Volatiles, ZHE Extraction								
TCLP Benzene	<0.010 mg/l		104	0.010	0.5	EPA 8260B	23-Oct-00 1735	TRR
TCLP Carbon Tetrachloride	<0.010 mg/l		101	0.010	0.5	EPA 8260B	23-Oct-00 1735	TRR
TCLP Chlorobenzene	<0.010 mg/l		106	0.010	100	EPA 8260B	23-Oct-00 1735	TRR
TCLP Chloroform	<0.010 mg/l		104	0.010	6	EPA 8260B	23-Oct-00 1735	TRR
TCLP 1,4-Dichlorobenzene	<0.010 mg/l		110	0.010	7.5	EPA 8260B	23-Oct-00 1735	TRR
TCLP 1,2-Dichloroethane	<0.010 mg/l		109	0.010	0.5	EPA 8260B	23-Oct-00 1735	TRR
TCLP 1,1-Dichloroethene	<0.010 mg/l		107	0.010	0.7	EPA 8260B	23-Oct-00 1735	TRR
TCLP Methyl ethyl ketone	<0.20 mg/l		103	0.20	200	EPA 8260B	23-Oct-00 1735	TRR
TCLP Tetrachloroethene	<0.010 mg/l		108	0.010	0.7	EPA 8260B	23-Oct-00 1735	TRR
TCLP Trichloroethene	<0.010 mg/l		110	0.010	0.5	EPA 8260B	23-Oct-00 1735	TRR
TCLP Vinyl Chloride	<0.010 mg/l		75	0.010	0.2	EPA 8260B	23-Oct-00 1735	TRR



LABORATORY ANALYSIS REPORT

URS Corp
Jim Stout
317 Mineral Ave
Libby, MT 59923

Project ID: EXPORT PLANT-317 MINERAL AVE. LIBBY, MT 59923
Sample ID: WEST WALL
Laboratory ID: 00-90875-3
Sample Matrix: Soil
Sample Date: 18-Oct-00 1800
Received at lab: 19-Oct-00

Reported: 25-Oct-00

	Results	Units	% Spike Rec.	Reporting Limit	Regulatory Limit	Method	Analyzed	
TCLP, Zero Headspace Extraction						EPA 1311	22-Oct-00 1200	MS
TCLP Volatiles, ZHE Extraction								
TCLP Benzene	<0.010 mg/l		103	0.010	0.5	EPA 8260B	23-Oct-00 1847	TRR
TCLP Carbon Tetrachloride	<0.010 mg/l		98	0.010	0.5	EPA 8260B	23-Oct-00 1847	TRR
TCLP Chlorobenzene	<0.010 mg/l		106	0.010	100	EPA 8260B	23-Oct-00 1847	TRR
TCLP Chloroform	<0.010 mg/l		103	0.010	6	EPA 8260B	23-Oct-00 1847	TRR
TCLP 1,4-Dichlorobenzene	<0.010 mg/l		106	0.010	7.5	EPA 8260B	23-Oct-00 1847	TRR
TCLP 1,2-Dichloroethane	<0.010 mg/l		109	0.010	0.5	EPA 8260B	23-Oct-00 1847	TRR
TCLP 1,1-Dichloroethene	<0.010 mg/l		97	0.010	0.7	EPA 8260B	23-Oct-00 1847	TRR
TCLP Methyl ethyl ketone	<0.20 mg/l		104	0.20	200	EPA 8260B	23-Oct-00 1847	TRR
TCLP Tetrachloroethene	<0.010 mg/l		112	0.010	0.7	EPA 8260B	23-Oct-00 1847	TRR
TCLP Trichloroethene	<0.010 mg/l		112	0.010	0.5	EPA 8260B	23-Oct-00 1847	TRR
TCLP Vinyl Chloride	<0.010 mg/l		72	0.010	0.2	EPA 8260B	23-Oct-00 1847	TRR



LABORATORY ANALYSIS REPORT

URS Corp
Jim Stout
317 Mineral Ave
Libby, MT 59923

Project ID: EXPORT PLANT-317 MINERAL AVE. LIBBY, MT 59923
Sample ID: SOUTH WALL
Laboratory ID: 00-90875-4
Sample Matrix: Soil
Sample Date: 18-Oct-00 1800
Received at lab: 19-Oct-00

Reported: 25-Oct-00

	Results	Units	% Spike Rec.	Reporting Limit	Regulatory Limit	Method	Analized
TCLP, Zero Headspace Extraction						EPA 1311	22-Oct-00 1200 MS
TCLP Volatiles, ZHE Extraction							
TCLP Benzene	<0.010 mg/l		101	0.010	0.5	EPA 8260B	23-Oct-00 1958 TRR
TCLP Carbon Tetrachloride	<0.010 mg/l		99	0.010	0.5	EPA 8260B	23-Oct-00 1958 TRR
TCLP Chlorobenzene	<0.010 mg/l		111	0.010	100	EPA 8260B	23-Oct-00 1958 TRR
TCLP Chloroform	<0.010 mg/l		106	0.010	6	EPA 8260B	23-Oct-00 1958 TRR
TCLP 1,4-Dichlorobenzene	<0.010 mg/l		113	0.010	7.5	EPA 8260B	23-Oct-00 1958 TRR
TCLP 1,2-Dichloroethane	<0.010 mg/l		107	0.010	0.5	EPA 8260B	23-Oct-00 1958 TRR
TCLP 1,1-Dichloroethene	<0.010 mg/l		104	0.010	0.7	EPA 8260B	23-Oct-00 1958 TRR
TCLP Methyl ethyl ketone	<0.20 mg/l		101	0.20	200	EPA 8260B	23-Oct-00 1958 TRR
TCLP Tetrachloroethene	<0.010 mg/l		118	0.010	0.7	EPA 8260B	23-Oct-00 1958 TRR
TCLP Trichloroethene	<0.010 mg/l		116	0.010	0.5	EPA 8260B	23-Oct-00 1958 TRR
TCLP Vinyl Chloride	<0.010 mg/l		68	0.010	0.2	EPA 8260B	23-Oct-00 1958 TRR



LABORATORY ANALYSIS REPORT

URS Corp
Jim Stout
317 Mineral Ave
Libby, MT 59923

Project ID: EXPORT PLANT-317 MINERAL AVE. LIBBY, MT 59923
Sample ID: BOTTOM
Laboratory ID: 00-90875-5
Sample Matrix: Soil
Sample Date: 18-Oct-00 1800
Received at lab: 19-Oct-00

Reported: 25-Oct-00

	Results	Units	% Spike Rec.	Reporting Limit	Regulatory Limit	Method	Analized	
TCLP, Zero Headspace Extraction						EPA 1311	22-Oct-00 1200	MS
TCLP Volatiles, ZHE Extraction								
TCLP Benzene	<0.010 mg/l		104	0.010	0.5	EPA 8260B	23-Oct-00 2110	TRR
TCLP Carbon Tetrachloride	<0.010 mg/l		97	0.010	0.5	EPA 8260B	23-Oct-00 2110	TRR
TCLP Chlorobenzene	<0.010 mg/l		106	0.010	100	EPA 8260B	23-Oct-00 2110	TRR
TCLP Chloroform	<0.010 mg/l		104	0.010	6	EPA 8260B	23-Oct-00 2110	TRR
TCLP 1,4-Dichlorobenzene	<0.010 mg/l		110	0.010	7.5	EPA 8260B	23-Oct-00 2110	TRR
TCLP 1,2-Dichloroethane	<0.010 mg/l		110	0.010	0.5	EPA 8260B	23-Oct-00 2110	TRR
TCLP 1,1-Dichloroethene	<0.010 mg/l		101	0.010	0.7	EPA 8260B	23-Oct-00 2110	TRR
TCLP Methyl ethyl ketone	<0.20 mg/l		105	0.20	200	EPA 8260B	23-Oct-00 2110	TRR
TCLP Tetrachloroethene	<0.010 mg/l		106	0.010	0.7	EPA 8260B	23-Oct-00 2110	TRR
TCLP Trichloroethene	<0.010 mg/l		111	0.010	0.5	EPA 8260B	23-Oct-00 2110	TRR
TCLP Vinyl Chloride	<0.010 mg/l		71	0.010	0.2	EPA 8260B	23-Oct-00 2110	TRR



LABORATORY ANALYSIS REPORT

URS Corp
Jim Stout
317 Mineral Ave
Libby, MT 59923

Project ID: EXPORT PLANT-317 MINERAL AVE. LIBBY, MT 59923
Sample ID: INTERMEDIATE
Laboratory ID: 00-90875-6
Sample Matrix: Soil
Sample Date: 18-Oct-00 1800
Received at lab: 19-Oct-00

Reported: 25-Oct-00

	Results	Units	% Spike Rec.	Reporting Limit	Regulatory Limit	Method	Analized
TCLP, Zero Headspace Extraction						EPA 1311	22-Oct-00 1200 MS
TCLP Volatiles, ZHE Extraction							
TCLP Benzene	<0.010 mg/l		95	0.010	0.5	EPA 8260B	23-Oct-00 2221 TRR
TCLP Carbon Tetrachloride	<0.010 mg/l		94	0.010	0.5	EPA 8260B	23-Oct-00 2221 TRR
TCLP Chlorobenzene	<0.010 mg/l		102	0.010	100	EPA 8260B	23-Oct-00 2221 TRR
TCLP Chloroform	<0.010 mg/l		99	0.010	6	EPA 8260B	23-Oct-00 2221 TRR
TCLP 1,4-Dichlorobenzene	<0.010 mg/l		107	0.010	7.5	EPA 8260B	23-Oct-00 2221 TRR
TCLP 1,2-Dichloroethane	<0.010 mg/l		103	0.010	0.5	EPA 8260B	23-Oct-00 2221 TRR
TCLP 1,1-Dichloroethene	<0.010 mg/l		96	0.010	0.7	EPA 8260B	23-Oct-00 2221 TRR
TCLP Methyl ethyl ketone	<0.20 mg/l		98	0.20	200	EPA 8260B	23-Oct-00 2221 TRR
TCLP Tetrachloroethene	<0.010 mg/l		103	0.010	0.7	EPA 8260B	23-Oct-00 2221 TRR
TCLP Trichloroethene	<0.010 mg/l		110	0.010	0.5	EPA 8260B	23-Oct-00 2221 TRR
TCLP Vinyl Chloride	<0.010 mg/l		73	0.010	0.2	EPA 8260B	23-Oct-00 2221 TRR

FAX COVER SHEET

DEPARTMENT OF ENVIRONMENTAL QUALITY
REMEDIATION DIVISION
2209 PHOENIX AVE
PO BOX 200901
HELENA MT 59620-0901
Phone (406) 444-1420
Fax (406) 444-1901

DATE: 10/30/00 TOTAL NUMBER OF PAGES 11
(INCLUDING COVER SHEET)

TO: Paul Peronard
303-312-6808

FAX #: 303-312-6962

FROM: John Constan
DEQ

RC#: 435021

COMMENTS: Paul - here is the data from the Petro
dig-site. Material will be going to the Lund Farm @
the mines. Grace (Pete's) will be work w/ DEQ
Petro people to fill out proper paperwork prior
to moving. Call if you have questions
If you have received any part of this fax in error please call

Talk to you soon

John



GRACE

RECEIVED

NOV 06 2000

Department of
Environmental Quality
Kalispell Regional Office

W.R. Grace & Co.
317 Mineral Ave.
P.O. Box 695
Libby, Mt. 59923

Tel: 406 293 3964
Fax: 406 293 3749

Marcile Sigler
Environmental Specialist
Remediation Division
Montana Department of Environmental Quality
109 Cooperative Way, Suite 105
Kalispell, Montana 59901

November 3, 2000

Dear Ms Sigler:

Enclosed is a completed landfarm application and site map for your review. As we discussed on the phone this landfarm location is on a concrete pad and is adjacent to the existing permitted landfarm. It is not our intent to allow this material to come in contact with the existing landfarm material.

I am available for meeting with you and showing you the location. I will be out of the office November 6 through November 8. If any further information is required, please let me know.

Very truly yours,

W.R. Grace & Co.

A handwritten signature in dark ink, appearing to read 'A. Stringer', with a long horizontal flourish extending to the right.

Alan R. Stringer
Libby Representative.

RECEIVED

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
HAZARDOUS WASTE SITE CLEANUP BUREAU - PETROLEUM RELEASE SECTION
PO BOX 200901 Phone (406) 444-5970
HELENA, MONTANA 59620-0901 Fax (406) 444-1901

NOV 08 2000

Department of
Environmental Quality
Kalispell Regional Office

OFFICE LOCATION: 2209 PHOENIX AVENUE UST FACILITY ID # None

INFORMATION NEEDED TO OBTAIN DEQ-UST APPROVAL FOR ONE-TIME
LANDFARMING OF PETROLEUM CONTAMINATED SOIL
(Required for soil volumes less than 1600 cubic yards)

Incomplete application may result in delays in processing. Please consult your local sanitarian or county planner if you need help in completing this form.

Contaminated Soil Owner Name: W.R. Grace & Co.

Owner Mailing Address: P.O. Box 695

Libby, Montana zip 59923 phone 406-293-3964

Contaminated Soil Site Address: 100 Highway 37

Name of Person Completing This Form: Alan R. Stringer (if different from owner)

Mailing Address: Same as above

zip phone

Proposed Landfarm Site Location: Adjacent to previous land farm site

Location Address: Kootenai Development Company Property-Vermiculite Mountain

Location Legal Description: SW 1/4 NE 1/4 Sec 22 T 31N R 30W

Landfarm Site Owner Name: Kootenai Development Company

Landfarm Site Owner Mailing Address: Same as above

zip phone

NAME OF PERSON RESPONSIBLE FOR OPERATING LANDFARM SITE (tilling, sampling, monitoring and remediation):

Alan R. Stringer phone: 406-293-3964

Soil is contaminated with: diesel heating fuel oil
gasoline waste oil other (describe) #5 oil

Landfarm Site Soil Type: Concrete Pad Soil

Conservation Service (SCS) Soil Series:

Determined by: SCS Soil Survey Soil Scientist Site Visit

(Contact your local SCS Office for assistance)

Estimated amount of soil to be landfarmed: 25 cubic yards

Estimated volume of fuel contained in soil: ?? gallons

Dimensions of Landfarm Site: 25 feet x 75 feet

What is the current use of the landfarm site? No current use

What is the proposed use of the site after soil treatment is completed?

No proposed use

Has the site been previously used as a landfarm site? No

(If yes, give details on a separate page.)

Have background soil samples been taken at landfarm site? No

TPH results:

(Attach laboratory report and show sample locations on site map.)

Date soil will be taken to site: Dependent upon approval

Will soil be stockpiled at landfarm site before being tilled?

MS 4/10 yes X If yes for how long?

Will stockpiled soils be covered and/or bermed? Currently covered yes

Date soil will be spread at landfarm site: When approval is given

Depth soil spread (in inches): 6"

What equipment will be used to till soil? Tractor with tilling blade

Estimated dates soil will be turned at landfarm site:

5/2001 6/2001 7/2001 8/2001

BANKRUPT
PROTECT

Estimated soil sampling dates: 9/2001 , 9/2002

ESTIMATED DISTANCE FROM LANDFARM SITE TO:

*Original contamination site 10 miles *Underground utility lines or pipes 5 miles
*Private wells _____ *Ponds or lakes 2 miles *Municipal wells _____
*Public roadways 5 miles *Stockwater wells _____ *Rivers, streams, springs 5 miles
*Buildings 5 miles *Irrigation ditches _____ *Gravel pits 2 miles

Groundwater at seasonally high level: 400 feet

How was this determined? Domestic well drilled in 1985, which has been abandoned.

What is the slope of the land at the landfarm site? Flat
What direction does the land slope? _____

DRAW A SITE MAP AND ATTACH A TOPOGRAPHIC MAP LOCATING ALL OF THE ABOVE STARRED ITEMS (*) THAT ARE FOUND WITHIN 1/2 MILE OF THE LANDFARM SITE. ATTACH AT LEAST ONE PHOTOGRAPH OF LANDFARM SITE. (Photograph must contain some identifying feature that can be used in the future to help locate this site.)

New land farm is indicated in RED. Old land farm is in BLACK.

All building indicated on the drawing have been removed.

We certify that the information contained on this form is accurate to the best of our knowledge. We acknowledge that impacts to public health and the environment resulting from the landfarming of contaminated soils at this site, are the responsibility of the owner of the landfarm site property.

Signature of Person Completing Form: [Signature]

date 11/3/00

Signature of Owner of Landfarm Site: [Signature]

date 11/3/00

Signature of Person Responsible For Operating Landfarm Site: [Signature]

date 11/3/00

